

REMARKS

Claims 1-5 are all the claims pending in the application. Claims 4 and 5 have been withdrawn from consideration by the Examiner as being drawn to a non-elected invention. Reconsideration and allowance of all the claims are respectfully requested in view of the following remarks.

Specification

The Examiner noted the preferred arrangement of the specification, highlighting the section entitled "Brief Summary of the Invention". Applicants note that such an arrangement is not required under the rules or laws. Further, such a summary of the invention is not necessary to the understanding thereof and, therefore, has been omitted.

Abstract of the Disclosure

The Examiner kindly reminded Applicants of the proper content of an abstract of the disclosure. Accordingly, Applicants have amended the Abstract of the Disclosure so as to conform to the proper content as noted by the Examiner.

Title

The Examiner required a new title that is more indicative of the invention to which the claims are directed. Accordingly, Applicants have amended the title so as to comply with the Examiner's requirement.

Drawings

The Examiner requested that Fig. 1 be designated by a legend such as --Prior Art-- because only that which is old is illustrated. Accordingly, Applicants have submitted herewith Proposed Drawing Corrections that label Fig. 1 as --Prior Art--.

Additionally, although not required by the Examiner, Applicants have submitted proposed drawing corrections to Fig. 6 so as to clearly label the grooves 8a. Along with this proposed change to Fig. 6, the paragraph bridging pages 7 and 8 of the specification has been amended. No new matter has been added.

Claim Rejections - 35 U.S.C. § 112

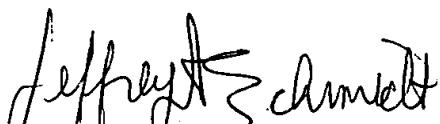
The Examiner rejected claims 1-3 under §112, 2nd paragraph, as indefinite. Accordingly, Applicants have amended claims 1 and 3 in a manner believed to overcome this rejection. In doing so, however, the scope of the claims has not been narrowed.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Applicants hereby petition for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



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APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE TITLE:

The title is changed as follows:

DISTRIBUTED FEEDBACK TYPE SEMICONDUCTOR LASER DEVICE [AND
METHOD OF MANUFACTURING THE SAME]

IN THE SPECIFICATION:

The specification has been changed as follows:

The paragraph bridging pages 7 and 8 has been changed as follows:

Subsequently, as shown in Figs. 5 and 6, a silicon compound or the like is coated on the grating layer 7a and cured to form the inorganic protective layers 8. Further, a resist mask 13 composed of SiO₂, TiO₂ and so on is applied on the protective layers to leave gaps in a strip shape in the direction [011] of the InP crystal substrate 1. The gaps define a transverse width of the through grooves or gap 8a, which is associated in confining the light, generated in the waveguide layer, in the transverse direction. After the inorganic protective layers 8 are subjected to etching until the surface of the grating layer 7a is exposed, the resist mask 13 is removed to thereby form the through grooves on the inorganic protective layers 8.

IN THE CLAIMS:

The claims have been amended as follows:

1. (Amended) A DFB type semiconductor laser device comprising a laser substrate, a grating layer, an insulating layer and an electrode layer [are] laminated in order, the insulating layer including at least one gap [through groove] extending [to the grating layer] in a direction [in which a resonator of the laser device is formed,] transverse to a grating of the grating layer so that the electrode layer [contacting] contacts the grating layer and [the] a clad layer.

3. (Amended) The DFB type semiconductor laser device according to claim 2, wherein the clad layer has a [maximum] thickness equal to or thinner than [of substantially] 0.5 μm.

IN THE ABSTRACT:

The Abstract of the Disclosure has been amended as follows:

A DFB type semiconductor laser device [can be readily manufactured obviating the need to form a ridge without any complicated process, and a method of manufacturing the same is described. The DFB type semiconductor laser device includes] including a laser substrate, a grating layer, an insulating layer and an electrode layer, which are laminated in the given order [, the] The insulating layer [including] includes a through groove or grooves extending to the grating layer in a direction in which a resonator of the laser device is formed, and the electrode layer contacts [contacting] the grating layer and [the] a clad layer.